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| APPLICATION NO.              | FI       | LING DATE  | FIRST NAMED INVENTOR    | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|------------------------------|----------|------------|-------------------------|---------------------|------------------|
| 09/874,026                   | (        | 06/06/2001 | Samuel Alan Johnson     | 6800                |                  |
| 7590 09/02/2004              |          |            |                         | EXAMINER            |                  |
| Brian Kinnear                |          |            | CONSILVIO, MARK J       |                     |                  |
| Holland & Hart<br>Suite 3200 | LLP      |            | ART UNIT                | PAPER NUMBER        |                  |
| 555 Seventeent               | h Street |            | 2872                    |                     |                  |
| Denver, CO 8                 | 30202    |            | DATE MAILED: 09/02/2004 |                     |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

|   |  | $\bigwedge$   |  |  |  |  |  |
|---|--|---|--|--|--|--|--|
|   | Application No.  | Applicant(s)  |  |  |  |  |  |
| Office Address O  | 09/874,026   | JOHNSON, SAMUEL ALAN  |  |  |  |  |  |
| Office Action Summary   | Examiner   | Art Unit  |  |  |  |  |  |
|   | Mark Consilvio   | 2872  |  |  |  |  |  |
| The MAILING DATE of this communication app<br>Period for Reply  | pears on the cover sheet with th   | e correspondence address  |  |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply If NO period for reply is specified above, the maximum statutory period w Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | 36(a). In no event, however, may a reply by within the statutory minimum of thirty (30) will apply and will expire SIX (6) MONTHS for cause the application to become ABANDO | e timely filed  days will be considered timely.  rom the mailing date of this communication.  DNED (35 U.S.C. § 133). |  |  |  |  |  |
| Status  |  |   |  |  |  |  |  |
| 1) Responsive to communication(s) filed on  |  |   |  |  |  |  |  |
| 2a) ☐ This action is <b>FINAL</b> . 2b) ☑ This  | action is non-final.   |   |  |  |  |  |  |
| 3) Since this application is in condition for allowar   |  |   |  |  |  |  |  |
| closed in accordance with the practice under E  | closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  |   |  |  |  |  |  |
| Disposition of Claims   |  |   |  |  |  |  |  |
| 4)⊠ Claim(s) <u>1-7</u> is/are pending in the application.  |  |   |  |  |  |  |  |
| 4a) Of the above claim(s) is/are withdraw   | 4a) Of the above claim(s) is/are withdrawn from consideration.   |   |  |  |  |  |  |
| 5) Claim(s) is/are allowed.   |  |   |  |  |  |  |  |
| 6)⊠ Claim(s) <u>1-7</u> is/are rejected.  |  |   |  |  |  |  |  |
| 7) Claim(s) 4 and 6 is/are objected to.   | )⊠ Claim(s) <u>4 and 6</u> is/are objected to.   |   |  |  |  |  |  |
| 8) Claim(s) are subject to restriction and/or   | 8) Claim(s) are subject to restriction and/or election requirement.  |   |  |  |  |  |  |
| Application Papers  |  |   |  |  |  |  |  |
| 9)⊠ The specification is objected to by the Examine   | er.  |   |  |  |  |  |  |
| 10)⊠ The drawing(s) filed on <u>06 June 2001</u> is/are: a)⊠ accepted or b)⊡ objected to by the Examiner.   |  |   |  |  |  |  |  |
| Applicant may not request that any objection to the   | drawing(s) be held in abeyance.  | See 37 CFR 1.85(a).   |  |  |  |  |  |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  |  |   |  |  |  |  |  |
| 11)☐ The oath or declaration is objected to by the Ex   | caminer. Note the attached Off   | ice Action or form PTO-152.   |  |  |  |  |  |
| Priority under 35 U.S.C. § 119  |  |   |  |  |  |  |  |
| 12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of:  | priority under 35 U.S.C. § 119   | 9(a)-(d) or (f).  |  |  |  |  |  |
| 1. Certified copies of the priority documents   | s have been received.  |   |  |  |  |  |  |
| 2. Certified copies of the priority documents   |  | cation No.  |  |  |  |  |  |
| 3. Copies of the certified copies of the prior  | · ·  |   |  |  |  |  |  |
| application from the International Bureau   | J (PCT Rule 17.2(a)).  | •   |  |  |  |  |  |
| * See the attached detailed Office action for a list  | of the certified copies not rece   | ived.   |  |  |  |  |  |
|   |  |   |  |  |  |  |  |
| Attachment(s)   |  |   |  |  |  |  |  |
| 1) Notice of References Cited (PTO-892)   | 4) Interview Summ  |   |  |  |  |  |  |
| <ul> <li>2) Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)</li> </ul>   | Paper No(s)/Mai<br>5) Notice of Inform   | il Date<br>al Patent Application (PTO-152)  |  |  |  |  |  |
| Paper No(s)/Mail Date   | 6)  Other:   |   |  |  |  |  |  |

Art Unit: 2872

## **DETAILED ACTION**

# Request for Information

Pursuant to 35 CFR § 1.105, the Examiner hereby requests a copy of the non-patent literature pertaining to the designs by Gee and Poncet, referred to in the specification at page 1, paragraph 3. The examiner has been unable to find full disclosures related to these designs and believes that the material may be essential.

# Specification

The disclosure is objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 6 (in fig. 1), 45 (in fig. 2) and 26 (in fig. 3).

Amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) is required in reply to the Office action to avoid abandonment of the application. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action.

Also, the disclosure is objected to because the pages are not numbered and, thus, it fails to comply with 37 CFR 1.52 (b)(5). Hereafter the specification is read to begin with "BACKGROUND OF THE INVENTION" starting as page 1.

Further, the disclosure is objected to because of the following informalities:

Terminology lacks consistency throughout the detailed description portion of the disclosure. Numeral "25" is referred to as "a small fixed curvature" (p. 5, para. 4) and

Art Unit: 2872

"contour segment" (p. 5, para. 4). Numeral "20" is referred to as "curve" (p. 5, para. 4), "bearing contour" (p. 5, para. 4), and "vertical contour" (p. 6, para. 1), "vertical front face" (p. 6, para. 1), "surface contour" (p. 7, para. 3), and "greatest radius" (p. 5, para. 4). Similar inconsistencies occur with numerals 1, 3, 8, 11, 30, and 32.

Appropriate correction is required.

# Claim Objections

Claims 4 and 6 are objected to because of the following informalities: Claims 4 and 6 do not follow proper grammatical form. The examiner recommends removal of the word "of" from the phase "...a front bearing surface of having..." in claims 4 and 6.

Appropriate correction is required.

#### Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over d'Autume (US Patent No. 5,062,699 here after know as "patent '699") in view of d'Autume (*Sky and Telescope* Sept. 1988 here after known as "the d'Autume article").

With respect to claims 1, 4, and 6, patent '699 discloses an equatorial platform for a telescope operable at a plurality of latitudes (see patent '699 col. 1, lines 60-61 and col.

Art Unit: 2872

2, lines 49-52). The platform comprises: a platform having a top and bottom side (see patent '699- 36 in Fig. 3); a platform base situated below the platform top (see patent '699- 42 in Fig. 3); a platform base with a plurality of adjustable engagement angle rolling bearing elements (see patent '699 a-e in Fig. 5 and col. 5, lines 1-5); a front bearing surface of fixed radius (see patent '699 Fig. 3); a contoured rear bearing surface having fabricated into its surface varying radii segments (see patent '699 52, 54, 56 in Fig. 6) and attached to the underside of the top platform (see patent '699 Fig. 3); and a rear bearing surface contacting the rolling bearing elements (see patent '699 col. 5, lines 6-11).

With respect to claims 1, 4, and 6, patent '699 does not expressly disclose a front bearing surface contacting rolling bearing elements or having fabricated into its surface fixed or varying radii segments. However, the d'Autume article discloses a front bearing surface contacting rolling bearing elements of claims 1, 4 and 6 in the figure on p. 305.

Also, with respect to claim 6, the d'Autume article discloses in the same figure a front bearing surface having fabricated into its surfaces fixed radii segments. Patent '699 and the d'Autume article are analogous art because they are from the same inventor and regarding modification to the same type of invention. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the invention disclosed by patent '699 with a front bearing surface making contact with rolling bearing elements and the surface having fixed radii segments. One of ordinary skill in the art would have been motivated to do this so the invention "can be made compact and fully balanced at any latitude" (see the d'Autume article p. 305, para. 2).

Further, with respect to claim 4, the varying radii segments are not expressly disclosed by

Art Unit: 2872

the d'Autume article. However, the d'Autume article does teach that the front bearing surface would logically be adjusted to a different shape for different latitudes, though these would be more difficult to make (see the d'Autume article p. 306, para. 1).

With respect to claim 2, patent '699 does not expressly disclose the means of adjusting the angles of its rolling surfaces and contact rollers. However, patent '699 does state that, while a preferred angle of its contact rollers, this is not essential and the adjustment of this angle must be allowed and aligned with the polar axis (see patent '699 col. 4, line 54 - col. 5, line 5). The hinge means described by the applicant is well known and an obvious design choice for a person of ordinary skill in the art. One of ordinary skill in the art would have been motivated to do this to allow the invention disclosed by patent '699 to be more easily adjusted to different latitudes thus creating a more universal design.

Further, with respect to claims 3, 5 and 7, patent '699 teaches an equatorial platform for a telescope that has motors fitted to its rolling bearing elements (see patent '699 col. 2, lines 62-68).

## Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Consilvio whose telephone number is (571) 272-2453. The examiner can normally be reached on Monday thru Friday, 8:30 am to 5:00 pm.

Art Unit: 2872

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mark Consilvio USPTO Examiner

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DREW A. DUNN SUPERVISORY PATENT EXAMINER